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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,900	04/15/2004	Mark Thomas Eckert	200404	7578

7590 10/17/2005

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EXAMINER

NGUYEN, XUAN LAN T

ART UNIT PAPER NUMBER

3683

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/824,900	Applicant(s) ECKERT ET AL.	
	Examiner Lan Nguyen	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT.Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/4/05</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

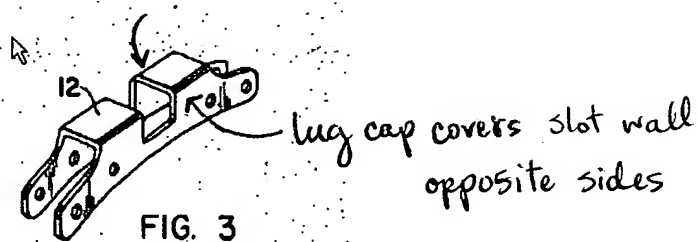
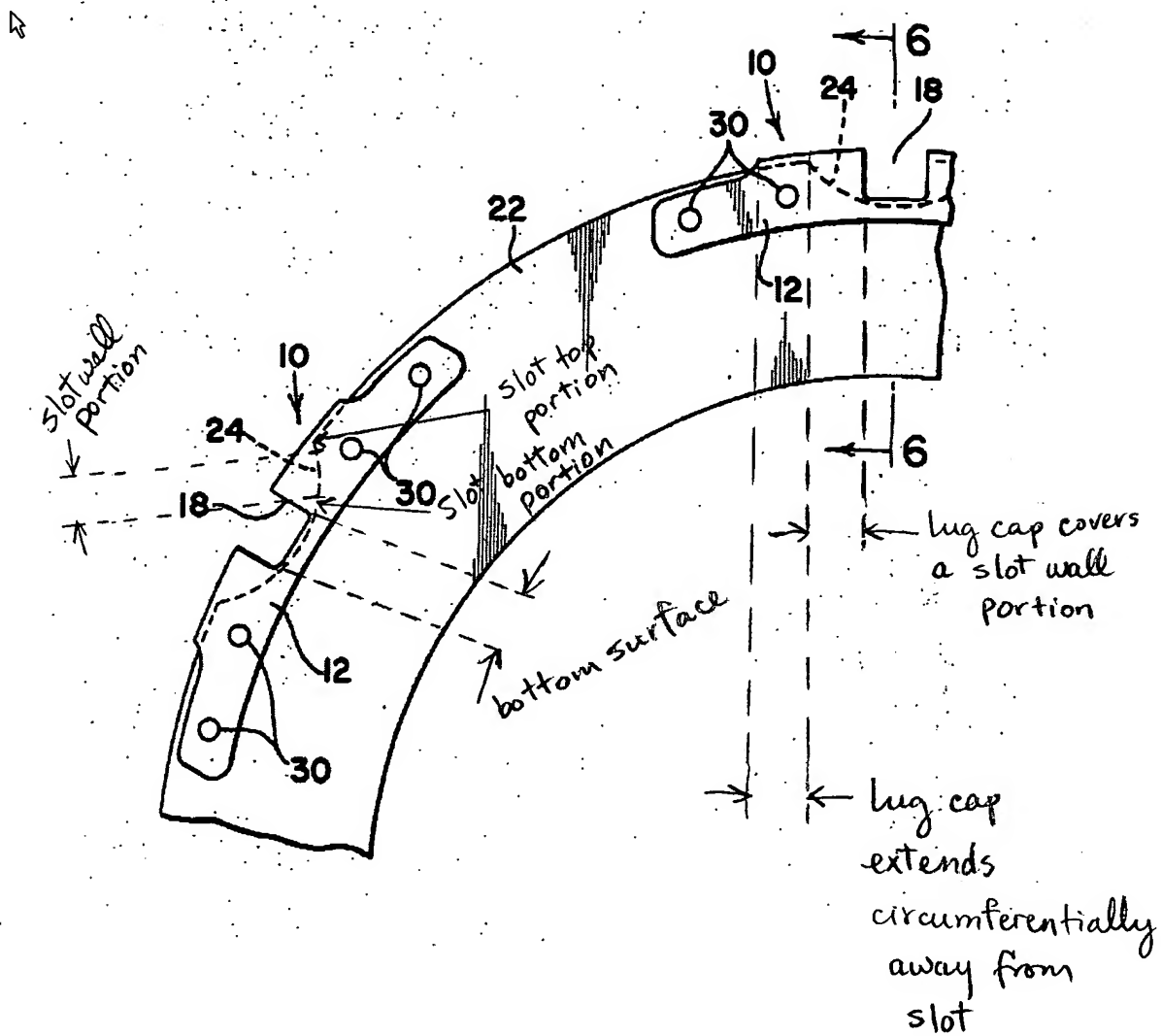
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crossman et al. in view of Van Horn.

Re: claim 1, Crossman shows a protective lug cap assembly for protection of a lug of a friction brake disc 22, wherein said disc has a periphery, and said disc has a plurality of circumferentially spaced slots 24, separating a plurality of circumferentially spaced lugs, wherein said slots are separated by a distance and disposed for engagement by a spline of a torque device, each of said arcuate slots having two generally radially extending wall portions, wherein said wall portions have a top, a bottom, and opposing sides, and a bottom surface extending between and interconnecting said wall portion bottoms (see the marked up figure below), as in the present invention, comprising: a lug cap 10 having a lug cap facing edges, wherein said lug cap covers one of said slot wall portions and extends circumferentially away from said slot on said slot wall top and said slot wall opposing sides, covering a portion of the lug, and wherein said lug cap facing edges are a portion of the lug cap which covers

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said slot wall portion; a load bearing fastening device operative to fasten the lug cap to the lug, such that said lug cap does not contact said slot wall portion and the load is applied to the friction disc via the fastening elements 30 and not via the slot wall portion. See Figs 1 and 5 and column 3, line 59-column 4, line 14. The claimed invention differs only in that the lugs have full faces. Van Horn shows lugs of the type claimed having faces 13. It would have been obvious to one of ordinary skill in the art to have utilized full faces on the lugs of Crossman in view of the teaching of Van Horn so as to provide a larger bearing surface for the splines as taught by Van Horn.



Re: claims 2-8, the relative dimensions and materials would have been obvious to one of ordinary skill in the art as a mere aspect of design consideration, such as to optimize performance.

Re: claim 9, Crossman shows rivets.

Re: claims 10-29, note the above discussion.

Response to Arguments

3. Applicant's arguments filed 7/22/05 have been fully considered but they are not persuasive.

Applicant argues that Crossman's slot does not comprise two generally radially extending wall portions, wherein said wall portions have a top, a bottom, and opposing sides, and a bottom surface extending between and interconnecting said wall portion bottoms. As marked above, the Examiner maintains that Crossman's slot meets the structures as stated in the preamble of claim 1. It is further believed that Applicant's argument is more specific than the claim language where Applicant states that Crossman's slot is a generous half moon shape contour devoid of any sharp corners thus would not comprise the claimed structure in the preamble of claim 1. Claim 1 does not claim that the top portion has to be a ninety-degree corner, nor the bottom, nor the wall has to be a perfectly vertical wall. In other words, claim 1 has not limit the shape of

the wall portions and related top, bottom portions. As such, Crossman's slot as marked above meets the claimed structure of the preamble of claims 1, 10 and 19.

Applicant further argues that Crossman teaches away from a lug cap which only covers a portion of the lug. Claims 1, 10 and 19 do not specify that the lug cap only covers a portion of the lug. Hence, Crossman's lug cap meets the claimed limitation "covering a portion of the lug".

Page 4 of the Response dated 7/22/05 states "Applicant respectfully request the Examiner specify where Crossman or Van Horn disclose a "lug cap having a lug cap face, wherein said lug cap covers one of said slot wall portions and extends circumferentially away from said slot on said slot wall top and said slot wall opposing sides." In the absence of such, applicants submit that no prima facie case of obviousness has been established, and request the rejections against claims 1-29 on this ground be withdrawn." The Examiner would like to point out that the rejection above states that Crossman teaches the "lug cap wherein said lug cap covers one of said slot wall portions and extends circumferentially away from said slot on said slot wall top and said slot wall opposing sides". Crossman's lug cap lacks a lug cap face. Van Horn is relied upon for the teaching of "a face 13" to provide a larger bearing surface. As combined, the lug cap of Crossman would have a face as taught by Van Horn wherein said lug cap covers one of said slot wall portions and extends circumferentially away from said slot on said slot wall top and said slot wall opposing sides. If Crossman or Van Horn alone teaches "a lug cap having a lug cap face, wherein said lug cap covers one of said slot wall portions and extends circumferentially away from said slot

on said slot wall top and said slot wall opposing sides", it would have been an structural anticipation rejection. Since, Crossman and Van Horn combined teaches the "lug cap having a lug cap face, wherein said lug cap covers one of said slot wall portions and extends circumferentially away from said slot on said slot wall top and said slot wall opposing sides", an obviousness rejection has been set forth above.

The rejection is still deemed proper and is repeated above.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan Nguyen whose telephone number is (571) 272-7121. The examiner can normally be reached on M-F, 8 to 4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on (571) 272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lan Nguyen
Primary Examiner
Art Unit 3683



10/11/05